This unfinished Road Glide custom was our test bike for the Glide-Pro; plan on seeing more of it when it's done.

Here's the original pivot shaft (right) and the Glide-Pro unit (left). Notice the longer shoulder area at the end, which is where the polyurethane bushings ride.

STABILITY THROUGH SUPPORT

Glide-Pro's FL stabilizer

WORDS & PHOTOS: Billy Bartels

I have a theory. It says that the reason the high-speed issues that affect some Harley FL models have only raised their ugly head in the last few years is because the motors have caught up to and passed the chassis. Think about it. When the rubber-mount touring frame was introduced in 1980, good luck getting a stock (like most are) shovelhead motor up past 80; same goes for the 80-inch Evolution motor. But when the Twin Cam arrived in the late '90s, it was no longer much work to blow right past 80 and almost into the triple digits on a relatively stock bike, and the '07 96ci Twin Cam has only made it easier. With vast public access to decent horsepower, what was a problem/challenge for only a privileged few in the past is now everyone's problem … at least everyone who likes to twist the dumbstick.

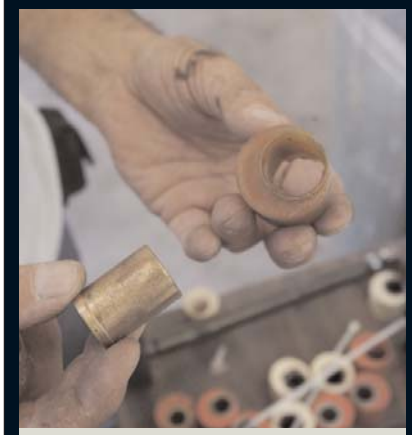
In any case, due to various potential liability issues, it's not like H-D can do much about it, because to do so would be admitting the problem and open them up to a slew of claims from the millions of bikes out there. In steps the aftermarket.

On these pages we've covered a variety of products designed to keep the back wheel aligned with the front. The basic problem they are all trying to solve is that, under the heavy stresses of high-speed riding or abrupt cornering at lower speeds, the rear wheel can apply enough torque to the rear rubber mounts (which support both the rear of the tranny and the swingarm) to cause them to come out of alignment with the front. This, combined with a relatively steep (light) 26-degree steering head angle and the oscillations of the engine, can cause a harmonic feedback loop that produces either a weave (not so bad) or, if not detected in time, a full-on, wicked tank-slapper.

Most of the products we've heard of that seek to alleviate this tendency consist of some kind of extra link between the frame and the engine/tranny to limit side-to-side movement of the swingarm. Simple and effective. Glide-Pro has come up with a system they think is even simpler and even more effective.

The Glide-Pro system replaces the stock swingarm pivot shaft with one made from PH 17-4 stainless steel, which we're informed is an extremely high- (military-) grade steel. The shaft is heat-treated to give it even more strength and heat resistance. You might wonder why heat resistance is an issue. When the stock shaft was pulled from our '07 Road Glide guinea pig (an hour after it was ridden), it was still too hot to hold onto for any length of time. This heat is generated by the torsional forces exerting themselves upon the shaft, as it is essentially a stressed member of the chassis … and holding a 750-plus-pound bike together is no small job.

The other part of the Glide-Pro is a pair of polyurethane



Glide-Pro designer Jake Ore shows us an early prototype of the Glide-Pro with a soft durometer rubber bushing and smooth inner sleeve. The sleeve had a tendency to "walk" in this version. Several of the subsequent versions are shown in the background.

The "walking" problem was solved in later versions by adding knurling and grooves to lock in the rubber. The pressure-molded bushing is now sturdy enough to resist even a determined attempt to dislodge it.

Here are the installed pieces (out of a bike) to show even a layman how much more support the Glide-Pro offers the end of the shaft compared to the stock arrangement.

bushings that fill the center of the stock rubber mounts at the ends of the pivot shaft. They basically act as support for the shaft, filling the hollow in the center of the stock mounts. The shaft is a bit longer to accommodate them, but the whole assembly fit under the stock pushcaps for an invisible installation.

After about an hour-long install at Glide-Pro's San Diego facility, we took off, back up the coast to our LA base. It didn't even take until the end of the driveway before we noticed the difference. There was immediately more firmness to the chassis. The loose feel of the bike was replaced with a very connected-to-the-ground sensation, without any increase in vibration. Other units we've tried either still felt a little squishy (but more stable) or transmitted additional vibration as the price for stability, while the Glide-Pro changed the character of the machine to one much more sure-footed.

Adding a large dose of speed didn't change things either. The tighter chassis didn't make for any discomfort, just a more planted feel at all speeds. We give our hearty recommendation. *B*

INSTALLING THE GLIDE-PRO

01

Rowdy of Glide-Pro started the job by stripping the bike of its saddlebags and dismounting the rear exhaust supports to help with clearance. He then launched right into removing the rear motor mount brackets and passenger footboard mounts.

02

Then Jake placed the first of two jacks under the rear of the frame to help with alignment during the shaft swap process; the second goes under the front of the swingarm, directly under the pivot itself.

03

Next the belt adjustment eccentric is loosened to let everything move freely without the belt tension pulling everything to the left. Notice the Sharpie mark to note the position of the adjuster.

04

After removing the right mounting bolt and mount, a pair of nuts was threaded onto the naked right side to keep the shaft from spinning while the left is loosened.

05

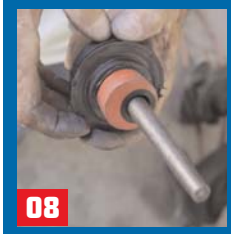
Here's all the stuff that holds your bike together, including the metal-backed rubber mount and a couple of machined washers. As you can see, the two jacks support both the frame and the rear swingarm, leaving them roughly in alignment.

06

Before the new pivot shaft goes in, it is liberally coated in antiseize, per the factory manual.

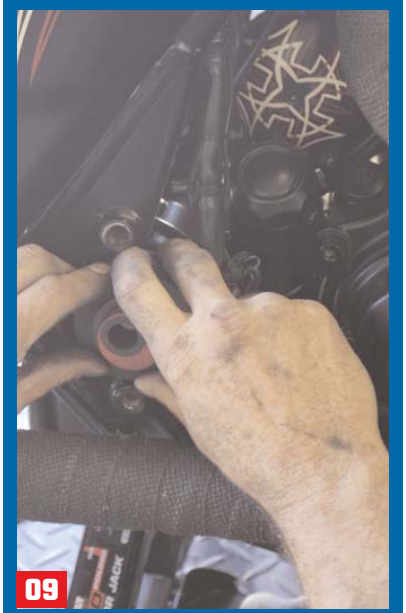
07

The bushing is installed in the rubber mount with a little nonpermanent lubricant like contact cleaner or spit.



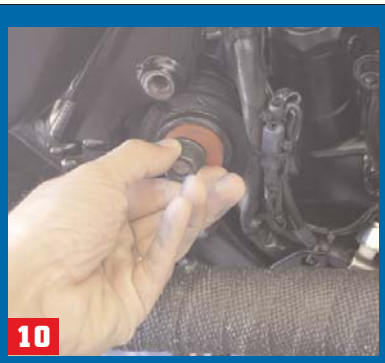
08

The tolerances are so tight between the bushing sleeve and the pivot shaft that it takes some work with a taper to get it aligned close enough to install it.



09

When you get it right and slide it onto the shaft, it'll make a high-pitched *zzzzip* as the machined surfaces slide past each other.



10

Rowdy then threaded the nut on the right side.

11

12

After torquing down both sides, it takes a little bit of aligning to get the mount back on, but once it is, the right side falls on. Be sure to use Loctite and torque all bolts to factory-manual specs.

SOURCE

GLIDE-PRO
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www.glide-pro.com

PARTS:
FL Stabilizer
(MSRP $399.95)